

Partnering Opportunity

Profile Status: Published

Research & Development Request

Fast Track to Innovation: Spanish biotechnological enterprise seeks a research company, a big data company and a big pharma in order to develop a personalized cancer therapeutic research.

Summary

A Spanish biotechnological company is preparing a project proposal for a Fast Track to Innovation call. The enterprise is specialized in the design and development of solutions based on in vivo zebrafish assays and they seek three different partners for research cooperation agreements: a genome research company, a big data company and a big pharma. The sought partners should complete the roadmap needed to provide the healthcare market with a novel in vivo platform to cancer treatment.

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Details

Description

A biotechnological company, based in Spain, is leader in the development and commercialization of novel, tailor-made solutions based on in vivo zebrafish assays. The team count on highly qualified biotechnology experts, a fully equipped biotech laboratory and an animal facility equipped with 76 aquariums (capacity for 2.500 zebrafish).

Thanks to the extensive knowledge acquired by the R&D projects performed in the field for many years, and a close collaboration with hospitals and cancer research institutions, they have identified a remarkable opportunity to develop a research project based on in vivo zebrafish

Ref: RDES20190819001

assays for cancer treatment.

A major difficulty found in effective cancer treatment is the complexity of the biological mechanism underlying cancer onset and disease progression. This is because the genetic makeup and metabolic profile of each individual patient influence the effect of anticancer drugs. Therefore, different people respond differently to the same therapy. The aim of the project would be to bring to the healthcare market a novel real time in vivo platform for personalized cancer treatment based on the use of zebrafish “avatars” as personalized, living test tubes.

In the project, a clinical study of the use of zebrafish avatars with colon cancer will be performed. Firstly, a complete molecular profiling will be performed, and it will stratify them according to cancer phenotypes. Then, for each cancer phenotype, the zebrafish xenotransplantation platform will be used in the selection of the most effective drug combinations, creating a phenotypes-molecules library (available in the form of a software tool).

This database (software) will allow narrowing the drug combinations that will work best for each cancer phenotype, so the number of fishes required to perform the study in patients can be significantly reduced (firstly patients will be stratified according to phenotype, and only a reduced number of experiments with a limited number of drug combinations will have to be performed).

The company is looking to build up a consortium to apply for a Fast Track to Innovation call (February 2020) in the scope of personalized cancer therapeutics, specifically colon cancer. The enterprise, as main partner involved in the project, will work in cooperation with a public institution, a research center and a university (all of them as subcontractors in the project).

In order to build up a consortium, partners with the following profiles will be evaluated:

- A genome research company: to create the genetic and molecular profile of each type of tumor (biopsies from patients) carrying out NGS (Next-Generation Sequencing) studies such as sequencing, transcriptomics. In addition, it is required bioinformatics analysis.
- A big data company: to create a database with all obtained data (software).
- And a big pharma (drug development): to count with a specified pipeline of potential antitumor drugs (against colon cancer) in order to validate the zebrafish models.

Official deadline for the call: 19/02/2020

Deadline for expressions of interest: 17/10/2020

Anticipated duration of the project: 2 years

Advantages and Innovations

The idea of analyzing individually the tumor of a patient to determine what combination of drugs will work best is what personalized cancer care is all about. This level of specificity will also involve greater potential to decrease toxic side effects. This in vivo model will allow performing efficacy assays providing as an excellent tool for anti-cancer drug discovery through large-scale screens, candidate drug testing, and target identification.

Technical Specification or Expertise Sought

1. Genome research company: NGS (sequencing, transcriptomics, bioinformatics).
2. Big data company: creation of a database with all obtained data (software).
3. Big pharma (drug development): specified pipeline of potential antitumor drugs (against colon cancer).

Stage of Development

Proposal under development

IPR Status

Secret Know-how

Keywords

Technology

01003010	Databases, Database Management, Data Mining
03004007	Pharmaceutics
06003001	Bioinformatics
06003002	Gene Expression, Proteome Research
06003003	Population genetics

Market

05005014	Oncology
05007002	Pharmaceuticals/fine chemicals

NACE

M.72.1.1	Research and experimental development on biotechnology
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Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

Contact Person

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Open for EOI : Yes

Dissemination

Relevant Sector Groups

Healthcare

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

2015

Turnover

<1M

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

Type of partner sought:

- Genome research company.
- Big data company.
- Big pharma (drug development).

Specific area of activity of the partner:

- NGS services (sequencing, exome, transcriptomics, etc.).
- Bioinformatics.
- Pharmaceutical industry (drug development).

Task to be performed:

- Genome research company: sequencing, transcriptomics, bioinformatics.
- Big data company: Creation of a database with all obtained data (software).
- Big pharma (drug development): specified pipeline of potential antitumor drugs (against colon cancer).

It is preferable partners with experience in EU and international projects development.

Type and Size of Partner Sought

SME 11-50,>500 MNE,251-500,SME 51-250,>500

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

Fast Track to Innovation (FTI): H2020-EIC-FTI-2018-2020

Coordinator Required

No

Deadline for EOI

17 Nov 2019

Deadline of the Call

19 Feb 2020

Project Duration

104 week(s)

Weblink to the Call

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/eic-fti-2018-2020>